

CLAIMS**We Claim:**

1. A blood pressure and pulse rate system for deriving the blood pressure and
5 pulse of a subject that is in communication with an interface member, said system
comprising:

a sensor module in communication with the interface member, said sensor module for
detecting a pulse wave form and pulse rate; and

10 a processor module that analyzes the pulse wave form and pulse rate signal for
deriving variants of blood pressure.

2. The system of claim 1, wherein said variants of blood pressure includes at
least one of pulse pressure, systolic pressure, diastolic pressure, pulse width, pulse time
difference, double peak difference, and/or depth of dicrotic notch.

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3. The system of claim 1, further comprising:

an output module for receiving said variants of blood pressure.

4. The system of claim 3, wherein said output module comprises at least one of
20 display, alarm, memory storage, communication device, printer, buzzer, PDA, lap top
computer, computer, audio or visual alarm, and/or light.

5. The system of claim 1, wherein the subject is directly or indirectly coupled to
the interface member.

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6. The system of claim 1, wherein said sensor module is directly or indirectly
coupled to the interface member.

7. The system of claim 1, wherein said sensor module and processor module are
30 in wireless communication.

8. The system of claim 7, wherein said wireless communication comprises at least one of RF link, an infrared, cellular phone link, optical and/or electromagnetic.

9. The system of claim 1, wherein said sensor module and processor module are
5. in a hard wired communication.

10. The system of claim 9, wherein said hard wired communication comprises at least one of electronic, integrated circuit, electromagnetic, wire, cable, fiber optics, a phone line, twisted pair, and/or coaxial.

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11. The system of claim 1, further comprising archival storage module.

12. The system of claim 11, wherein said archival storage module stores at least one of longitudinal analysis and/or pattern recognition for diagnostic and other purposes.

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13. The system of claim 12, wherein said processor module analyzes the longitudinal analysis and/or pattern recognition.

14. The system of claim 12, further comprising:

20 a second processor module, said second processor module analyzes the variants of blood pressure, longitudinal analysis, and/or pattern recognition.

15. The system of claim 1, wherein said subject is a human and/or animal.

25 16. The system of claim 1, wherein said subject is an animate or inanimate object.

17. The system of claim 1, where said interface member is at least one of platform, scale, chair, bath mat, mat, bed, shoe, slipper, door knob, handle, and/or sandal.

30 18. The system of claim 1, wherein said sensor module comprises at least one of piezoelectric device, fiber optic device, differential transformer, and/or pressure determining

device providing sufficient resolution to transduce the naturally occurring changes in physiology related to the subject of interest cardiac event.

19. The system of claim 18, wherein said sensor module is directly or indirectly
5 coupled to the subject.

20. The system of claim 1, further comprising a control module for controlling
said sensor module and processor module.

10 21. The system of claim 1, wherein said sensor module is directly or indirectly
coupled to the subject.

22. A method for deriving the blood pressure and pulse of a subject that is in
communication with an interface member, said method comprising:

15 detecting a pulse wave form and pulse rate; and
analyzing the pulse wave form and pulse rate signal for deriving variants of blood
pressure.

23. The method of claim 22, wherein said variants of blood pressure includes at
20 least one of pulse pressure, systolic pressure, diastolic pressure, pulse width, pulse time
difference, double peak difference, and/or depth of dicrotic notch.

24. The method of claim 22, further comprising:
outputting the variants of blood pressure.

25 25. The method of claim 24, wherein said outputting is provided by an output
module.

26. The method of claim 25, wherein said output module comprises at least one of
30 display, alarm, memory storage, communication device, printer, buzzer, PDA, lap top
computer, computer, audio or visual alarm, and/or light.

27. The method of claim 22, further comprising:
storing archival information or data.

5 28. The method of claim 27, wherein the storing of archival information or data is
provided by an archival storage module that stores at least one of longitudinal analysis and/or
pattern recognition for diagnostic and other purposes.

10 29. The method of claim 28, further comprises:
analyzing the longitudinal analysis and/or pattern recognition.

30. The method of claim 22, wherein said subject is a human and/or animal.

15 31. The method of claim 22, wherein said subject is an animate or inanimate
object.

32. A computer program product comprising computer usable medium having
computer logic for enabling at lease one processor in a computer system to derive the blood
pressure and pulse of a subject that is in communication with an interface member, said
20 computer logic comprising:
detecting a pulse wave form and pulse rate; and
analyzing the pulse wave form and pulse rate signal for deriving variants of blood
pressure.